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EXAMINER	
SUN, XIUQIN	

ART UNIT	PAPER NUMBER
2863	

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Please find below and/or attached an Office communication concerning this application or proceeding.

H:A

Office Action Summary	Application No.	Applicant(s)	
	09/769,012	ELLENBY ET AL.	
	Examiner	Art Unit	
	Xiuqin Sun	2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 August 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26,29-49 and 52-129* is/are pending in the application.

4a) Of the above claim(s) *27,28,50 and 51* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26,29-49,52,54-62,69-86,88,90-94,96-97,99-100 and 103-129* is/are rejected.

7)☒ Claim(s) *53,63-68,87,89,95,98,101 and 102* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 January 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *08/25/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. A response on 08/24/2004 a provisional election was made without traverse to prosecute the invention of claims 1-26, 29-49 and 52-129. Claims 27, 28, 50 and 51 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 117 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, the claim fails to recite any limitations which are considered as the invention.

Claim Objections

3. Claims 89, 92, 93, 108 and 111 are objected to because of the following informalities:

1). Claim 89 is objected to since it improperly depends on itself, the examiner assume this claim is depend on claim 88 from the nature of the claim for the rest of the office action, correction is required.

2.) Claims 92, 93: change "claim 83" into –claim 82--.

3). Claim 108 is objected to because of the following minor informalities: Please change "st ate" into -- state --.

3). Claim 111 is objected to because of the following minor informalities: Please change "eleswhere" into -- elsewhere --.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1-26, 30-37, 69, 70, 77-79, 83-86, 90, 94, 96, 100, 103, 106, 107, 108, 110, 111, 114, 115, 119-129 are rejected under 35 U.S.C. 102(a) as being anticipated Ellenby (U.S. Pat. No. 6,173,239 B1).

Ellenby teaches an apparatus for addressing objects, the apparatus comprising: a directional reference (col. 3, lines 26-35); a point reference (col. 3, lines 3-25); a position determining means (col. 3, lines 36-67); an attitude determining means (col. 4, lines 1-18); a computer processor (col. 4, lines 34-49); and a user interface (col. 4, lines 19-33); said position determining means being arranged to determine the position of the point reference and convey

position information to said computer processor (col. 3, lines 36-67); said attitude determining means being arranged to determine the attitude of the directional reference and convey attitude information to said computer processor (col. 4, lines 1-18); and said user interface being in electronic communication with said computer processor (col. 4, lines 19-49).

Ellenby further teaches that: said computer processor further comprising a database having stored therein information relating to objects being addressed (col. 4, lines 50-62); said stored information including a geometric descriptor (col. 4, lines 63-67); said stored information including associations with objects being addressed (col. 4, lines 41-49); said geometric descriptor being a mathematical definition of a geometric body having spatial extent which may form an intersection with an address indicator (col. 2, lines 55-58 and col. 5, lines 32-39); said address indicator being defined by an address state of said apparatus (col. 3, lines 4-23); said geometric descriptor is an approximation of the space occupied by an object associated with the geometric descriptor (col. 4, line 63 to col. 5, line 8; and col. 6, lines 53-61); said address state is defined by parameters in the group including: position, attitude, range, transverse extent, and time (col. 3, lines 4-23; col. 5, lines 32-39; col. 7, lines 49-58 and col. 8, lines 46-55); said address state is defined by parameters in the group including: latitude, longitude, altitude, compass heading, pitch, roll, transverse extent, range, range gate, and time (col. 3, lines 4-23; col. 5, lines 32-39; col. 7, lines 49-58 and col. 8, lines 46-55); said address indicator is defined in part by the position of said point reference as determined by said position determining means and the attitude of

said direction reference as determined by said attitude determining means (col. 3, lines 4-9; col. 4, lines 36-41 and col. 8, lines 46-55); said database including a plurality of records where each record is arranged to correspond to a single object and is arranged to comprise a plurality of fields (col. 4, lines 50-62 and col. 6, lines 7-18); said records each comprise a geometric descriptor and an association to the object (col. 4, lines 50-62 and col. 6, lines 7-18); said records further comprise information elements containing multimedia data relating to the object (col. 4, lines 50-62 and col. 6, lines 7-18); said user interface is a display screen operable for forming images and graphical forms (col. 4, lines 20-33); said user interface includes a speaker (col. 4, lines 20-33); said user interface includes tactile output (col. 4, lines 20-33); said apparatus further comprising a plurality of information elements stored in the computer in a database, each information element comprising stored information relating to an object which may be addressed by the apparatus (col. 4, lines 50-62 and col. 6, lines 7-18); each of said information elements further comprising a geometric descriptor being a definition of a geometric body which may be associated with an object which may be addressed by the apparatus (col. 4, lines 50-62 and col. 6, lines 7-18); said apparatus further comprising an address indicator, said address indicator being a definition of a geometric body being associated with said directional reference and point reference, whereby said address indicator may be caused to form an intersection with one or more geometric descriptors (col. 2, lines 55-58; col. 3, lines 4-9; col. 4, lines 36-41 and col. 5, lines 32-39); said geometric body being a cone (col. 3, lines 4-9; col. 4, lines 36-41 and col. 8, lines

46-55); said geometric body being a conic section (col. 3, lines 4-9; col. 4, lines 36-41 and col. 8, lines 46-55); said geometric body being a conic section is arranged in accordance with a range gate definition (col. 9, lines 29-33).

Ellenby further teaches a method of presenting information relating to an object being addressed, the method comprising the acts: addressing an object (col. 2, lines 66-67; col. 3, lines 1-25); determining position (col. 3, lines 36-67); determining attitude (col. 4, lines 1-18); searching a database (col. 4, lines 50-63); and presenting information (col. 4, lines 19-33); said addressing an object being further defined as causing a reference pointing direction to be aligned towards an object (col. 3, lines 4-25); said determining position further defined as measuring the position of a point reference (col. 3, lines 36-67); said determining attitude further defined as measuring the orientation of a directional reference (col. 4, lines 1-18); said searching a database further defined as comparing an address indicator against a geometric descriptor of an information element (col. 4, lines 20-63); and said presenting information further defined as reporting results of a search where correlation is found (col. 4, lines 35-63).

Ellenby further teaches: said presenting information including information relating to an object being addressed in the addressing an object step (col. 2, lines 34-41; col. 5, lines 32-39; col. 8, lines 5-10 and col. 9, lines 47-57); said geometric descriptor being associated with an object which is an object being addressed in the addressing an object step (col. 4, line 63 to col. 5, line 8; and col. 6, lines 53-61); said address indicator being associated with said reference pointing direction and said point reference (col. 2, lines 55-58; col. 3, lines 4-9;

col. 4, lines 36-41 and col. 5, lines 32-39); said attitude determining step includes principles used in accordance with laser gyroscope systems (col. 4, lines 2-18); said presenting information step further including presenting information at a transducer operable for creating a physical disturbance which may be perceived by a human operator (col. 4, lines 2-18); said presenting information step further including presenting information on a display screen in image and graphical form (col. 4, lines 2-18); said presenting information step further including presenting information on an audio speaker (col. 4, lines 2-18); said presenting information step further including presenting information on a transducer which produces a tactile output (col. 4, lines 2-18); said searching a database step further comprising recalling information stored in information elements, each information element comprising stored information relating to an object which is the object being addressed (col. 4, lines 50-62 and col. 6, lines 7-18); said information elements further comprising a geometric descriptor which is a definition of a geometric body and which is associated with an object that is an object being addressed (col. 4, lines 50-62 and col. 6, lines 7-18); said address indicator being a geometric body which is associated with said directional reference pointing direction and said point reference (col. 2, lines 55-58; col. 3, lines 4-9; col. 4, lines 36-41 and col. 5, lines 32-39).

Ellenby further teaches methods for triggering computer action relating to an object being addressed comprising the steps: determining an address state of a mobile unit (cols. 3-4, lines 36-18); forming a request including parameters of the address state (col. 4, lines 1-49); transmitting said request to a server

computer (col. 4, lines 35-49); and processing said request at said server computer to trigger an action in accordance with a program running on said server computer (col. 4, lines 35-49; col. 5, lines 11-39 and col. 6, lines 1-24).

Ellenby further teaches methods for triggering computer action relating to an object being addressed comprising the steps: manipulating point and direction references of a mobile unit to cause a spatial alignment with an object of interest (col. 3, lines 26-67; col. 4, lines 1-18 and col. 5, lines 11-31); causing a trigger event while simultaneously holding said spatial alignment (col. 3, lines 26-67; col. 4, lines 1-18; and col. 5, lines 11-31); in response to said trigger event, measuring the address state of said mobile unit (col. 3, lines 26-67; col. 4, lines 1-18 and col. 5, lines 11-31); generating a request in accordance with a program running on a mobile unit computer processor including at least a specification of the address state including position and attitude measurement (col. 3, lines 26-67; col. 4, lines 1-18 and col. 5, lines 11-31); transmitting said request from said mobile unit to a server computer running application programming (col. 4, lines 19-59 and col. 5, lines 32-39); executing a database search including a step performing an intersection test in view of said request against at least one database record including at least one geometric descriptor to produce a result set (col. 4, lines 19-59 and col. 5, lines 32-39); taking an action in agreement with said application programming whereby said action relates to said result set (col. 4, lines 19-59; col. 5, lines 32-39 and col. 6, lines 1-24); said action is recording object data in a database local to the mobile unit (col. 4, lines 19-59; col. 5, lines

32-39); returning data produced in said database search and conveying said data to said mobile unit (col. 4, lines 19-59; col. 5, lines 32-39 and col. 6, lines 1-24).

Ellenby further teaches: said measuring the address state of said mobile unit is further comprised: measuring the position of said point reference by a global positioning system to determine latitude, longitude and altitude values (col. 3, lines 26-67; col. 4, lines 1-18 and col. 5, lines 11-31); said intersection test is further defined as performing a mathematical determination for coincidence between a geometric descriptor which defines a spatial extent and an address indicator geometric construct to yield a data set of elements each having been determined positive in the coincidence test (col. 3, lines 26-67 and col. 5, lines 32-39); said taking an action step is further defined as calling a computer program function which executes instructions to operate an data produced in said intersection test (cols. 6-7, lines 62-5).

Ellenby further teaches: said determining an address state includes a step of forming an address indicator which specifies the address state (col. 3, lines 4-23); processing said request includes a database search step of searching a plurality of records each associated with a particular object (col. 2, lines 59-65 and col. 4, lines 35-62).

Ellenby further teaches: said computer action is an action taken at a server computer, said computer action is an action taken at an object being addressed (cols. 3-4, lines 36-49; col. 5, lines 11-39 and col. 6, lines 1-24); said database search step further comprises a step of searching records including a geometric descriptor and at least one information element relating to objects,

wherein said geometric descriptor and at least one information element are associated with a particular object, and said database search includes a step performing a test for intersection between an address indicator and a geometric descriptor to determine objects being addressed (col. 2, lines 59-65; col. 4, lines 35-62; and col. 5, lines 11-39); said action at server includes a step comprising forming a database of addressed objects (col. 2, lines 59-65; and col. 4, lines 35-62); the steps thereof being preceded by a pointing step comprising: manipulating a mobile unit having a point and direction reference to cause the point and direction reference to form a spatial relationship with an object of interest (col. 3, lines 37-67 and cols. 7-8, 59-10); said forming an address indicator is comprised of the step measuring position with a global positioning system (col. 3, lines 37-67 and col. 5, lines 18-25).

Ellenby further teaches methods of addressing objects comprising the steps: determining position of a point reference; determining attitude of a direction reference; forming an address state indicator which depends on determined position and attitude; performing an intersection test with said address state descriptor against data stored in a database to yield a result set of data relating to objects being addressed; and taking an action which depends upon the result set (col. 3, lines 36-67; col. 4, lines 1-18, lines 20-33; col. 5, lines 11-39 and col. 6, lines 1-24); said action is an action taken at an object being addressed, said action is an action taker elsewhere (col. 3, lines 36-67; col. 4, lines 1-18, lines 20-33; col. 5, lines 11-39 and col. 6, lines 1-24); the steps thereof being preceded by a pointing step comprising: manipulating a mobile unit

having a point and direction reference to cause the point and direction reference to form a spatial relationship with an object of interest (col. 3, lines 36-67; col. 4, lines 1-18, lines 20-33; col. 5, lines 11-39 and col. 6, lines 1-24); said spatial relationship is further defined as one where an address vector forms an intersection with a geometric descriptor associated with an object (col. 3, lines 36-67; col. 4, lines 1-18, lines 20-33; col. 5, lines 11-39 and col. 6, lines 1-24).

Ellenby further teaches methods for triggering computer action relating to an object being addressed comprising the steps: receiving a request including parameters of an address state of a mobile unit at a server computer (col. 4, lines 35-49); and processing said request at said server computer to trigger an action in accordance with a program running on said server computer (col. 4, lines 19-59; col. 5, lines 32-39 and col. 6, lines 1-24); and processing said request at said server computer to trigger an action in accordance with a program running on said server computer (col. 4, lines 35-49; col. 5, lines 11-39 and col. 6, lines 1-24).

Ellenby further teaches: said processing said request includes a database search step of searching a plurality of records each associated with a particular object (col. 4, lines 50-62 and col. 6, lines 7-18); said database search step further comprises a step of searching records including a geometric descriptor and at least one information element relating to objects (col. 4, lines 20-63); said database search step further comprises a step of forming an address indicator which specifies an address state (col. 3, lines 4-23); and said database search step further comprises a step of performing a test for intersection between an

address indicator and a geometric descriptor to determine objects being addressed (col. 4, lines 19-59 and col. 5, lines 32-39).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellenby (U.S. Pat. No. 6,173,239 B1) in view of Gnepf et al. (U.S. Pat. No. 6,009,629).

Ellenby teaches the method for presenting information relating to an object being addressed that includes the subject matter discussed above. Ellenby does not mention: said attitude determining step includes principles used in accordance with triaxial magnetometer systems.

Gnepf et al. disclose a process for detecting the direction of the earth magnetic field, and teach: an attitude determining step that includes principles used in accordance with triaxial magnetometer systems (col. 1, lines 23-47).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Gnepf et al. in the system of Ellenby in order to consider the impact of the earth's magnetic field on an electronic compass in determining the pointing direction or orientation of a

directional reference (Gnepf et al., col. 1, lines 15-21).

8. Claims 38-40, 46 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellenby (U.S. Pat. No. 6,173,239 B1) in view of Sheynblat et al. (U.S. Pub. No. 2002/0171581).

Ellenby teaches pointing systems comprising a mobile unit, said mobile unit comprising: a computing facility; a point reference coupled to a position determining means coupled to said computing facility whereby the position of the point reference is conveyed to the computing facility; and an application server; a direction reference coupled to an altitude determining means coupled to said computing facility whereby the attitude of the pointing reference is conveyed to the computing facility; said application server being an application specific computer processor operable for receiving requests having position and attitude information therein from mobile units and processing those requests in accordance with a preprogrammed scheme (col. 2, lines 55-58; col. 3, lines 4-23; col. 4, lines 35-49; cols. 4-5, lines 50-8, col. 5, lines 32-39 and col. 6, lines 53-61); said database having therein preprogrammed information including geometric descriptors associated with data relating to an object where said geometric descriptors are a spatial definition of the object (col. 4, lines 50-62). Ellenby further teaches: said database containing a plurality of records, each record comprising: a geometric descriptor; and a plurality of multi-media data elements, each record relating to a single object, the object having spatial extent and well defined fixed location associated therewith, the geometric descriptor being a specification of that spatial extent and well defined fixed location, the

multi-media data elements being information relating to the object associated with the geometric descriptor (col. 2, lines 59-65 and col. 4, lines 50-62); said multi-media data elements being from the group: audio information, video information, still photo, graphical, bitmap images, simple text and animation clips (col. 40, lines 50-62).

Ellenby does not mention explicitly: a wireless network, said mobile unit being in electromagnetic communication with the wireless network, and said mobile unit being operable for transmitting requests with encoded position and attitude information to said wireless network; a wireless application gateway; the Internet; wherein said wireless network is coupled to a wireless application gateway operable for receiving encoded requests from the wireless network and translating encoded requests into Internet Protocol requests and routing them via the Internet to said application server; and said database coupled to said application server via a communication link where information may be exchanged; said mobile unit is further comprised encoding facility; said mobile unit is further comprised transmission facility.

Sheynblat et al. teach a method and apparatus for providing location-based information, including: a mobile unit, a wireless network, a wireless application gateway, the Internet, an application server, and a database, wherein said mobile unit being in electromagnetic communication with the wireless network, and said wireless network is coupled to a wireless application gateway operable for receiving encoded requests from the wireless network and translating encoded requests into Internet Protocol requests and routing them via

the Internet to said application server (Figs. 2A, 2B, 9 and 10; Table 1; sections 35-40, 52, 118 and 131); said application server being an application specific computer processor operable for receiving requests having position and attitude information therein from mobile units and processing those requests in accordance with a preprogrammed scheme (Fig. 9; sections 113-115, and 119-122); said database coupled to said application server via a communication link where information may be exchanged (sections 108 and 109); said application server comprising general purpose computer programming to effect the following steps: receiving a request from wireless application gateway; extracting position and attitude information from the request; preparing a response; and transmitting said response to said wireless application gateway, wherein said response includes a message 'no objects in database' (Fig. 10 and sections 118-122); said mobile unit is further comprised encoding facility and transmission facility (sections 67 and 33).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Sheynblat et al. in the system of Ellenby in order to provide methods and apparatus for distributing location-based information to a client via Internet and the World-Wide Web (Sheynblat et al., Abstract).

9. Claims 41- 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellenby (U.S. Pat. No. 6,173,239 B1) in view of Sheynblat et al. (U.S. Pub. No. 2002/0171581), as applied to claim 38 above, and further in view of Chan et al. (U.S. Pat. No. 6,381,603).

Ellenby and Sheynblat et al. teach the pointing systems that include the subject matter discussed above. Ellenby and Sheynblat et al. do not mention explicitly: said application server comprising general purpose computer programming to effect the following steps: receiving a request from wireless application gateway; extracting position and attitude information from the request; preparing a response; and transmitting said response to said wireless application gateway, wherein said response includes a message 'no objects in database'; said preparing a response includes formatting a list of addressed objects as determined in search of geometric descriptors contained in said database; and said preparing a response includes recalling data from a database ad using said data to form the response.

Chan et al. teach a local information access system and method, including: an application server comprising general purpose computer programming to effect the following steps: receiving a request from wireless application gateway; extracting position and attitude information from the request; preparing a response; and transmitting said response to said wireless application gateway, wherein said response includes a message 'no objects in database' (Figs. 1, 4, 7, 10, 13, 16 and 19-21; cols. 4-5, lines 62-21 and col., 13, lines 9-41); said preparing a response includes formatting a list of addressed objects as determined in search of geometric descriptors contained in a database (Fig. 6, and col. 7, lines 16-26); and said preparing a response includes recalling data from a database ad using said data to form the response (cols. 6-7, lines 66-15).

It would have been obvious to one having ordinary skill in the art at the

time the invention was made to include the teaching of Chan et al. in the combination of Ellenby and Sheynblat et al. in order to provide an efficient system and method for distributing stored information from an application server to a client (Chan et al., col. 3, lines 35-56).

10. Claims 45, 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellenby (U.S. Pat. No. 6,173,239 B1) in view of Sheynblat et al. (U.S. Pub. No. 2002/0171581), as applied to claim 38 above, and further in view of Ellenby et al. (U.S. Pat. No. 6,396,475).

Ellenby and Sheynblat et al. teach the pointing systems that include the subject matter discussed above. Ellenby and Sheynblat et al. do not mention explicitly: said mobile unit is comprised of elongated case having a longitudinal axis; the point reference is written in the case; direction reference is aligned with a longitudinal axis of said case.

Ellenby et al. teach a device for addressing objects via pointing, including: a mobile unit that is comprised of elongated case having a longitudinal axis, wherein a point reference is written in the case and a direction reference is aligned with a longitudinal axis of said case (cols. 3-4, lines 66-12).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Ellenby et al. in the combination of Ellenby and Sheynblat et al. in order to provide the mobile unit with a good directional reference for accurate pointing operation in addressing an object (Ellenby et al., cols. 3-4, lines 66-12).

11. Claim 52, 97 and 104 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Ellenby in view of Sheynblat et al. (U.S. Pub. No. 2002/0171581), as applied to claims 38, 69, 70 and 100 above, and further in view of Fujita et al. (U.S. Pat. No. 5,564,194).

Ellenby and Sheynblat et al. teach the pointing systems that include the subject matter discussed above. Ellenby and Sheynblat et al. do not mention explicitly: said attitude determining means is a magneto resistive device.

Fujita et al. teach a geomagnetic direction sensor, including: a direction determining means which is a magneto resistive device (Abstract and col. 2, lines 36-64).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Fujita et al. in the invention of Ellenby and Sheynblat et al. in order to provide a cheap and small-size device for determining attitude which has satisfactory sensitivity and accuracy (Fujita et al., Abstract and col. 2, lines 24-26).

12. Claims 54-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellenby (U.S. Pat. No. 6,173,239 B1) in view of Ellenby et al. (U.S. Pat. No. 6,396,475).

Ellenby teaches pointing systems and apparatus comprising: a) a direction reference; b) attitude determining means; c) computer; and d) display; said computer being in communication with said attitude determining means whereby attitude information relating to said direction reference may be conveyed to said computer; and said display being conventionally coupled to said computer (col. 4, lines 1-49; col. 5, lines 26-31, lines 63-67; col. 6, lines 1-6 and lines 19-24).

Ellenby does not mention explicitly: said direction reference being movable via influence from a user; said attitude determining means so coupled to said movable direction reference whereby a measure of pointing direction may be made. Ellenby is also silent on: said computer further comprising a selection control, said selection control comprising: i) a plurality of selection items; and ii) a selection cursor, said selection cursor is associated with either of said plurality of selection items to form at least one selected item, and said selection cursor being operable for switching from a first item to a second item in response to a change in pointing direction as determined by said attitude determining means; said computer further comprising a selection control, said selection control comprising: i) a selection range; and ii) a selection cursor, said selection cursor is associated with a value within the selection range, said selection cursor being operable for switching values within the selection range in response to a change in pointing direction as determined by said attitude determining means; said selection control being represented as a graphic played at said display; said graphic being a list of items whereby each of said plurality of selection items appears in the list as a text label; said graphic being a group of icons whereby each of said plurality of selection items is represented in the group by a single icon; said group of icons being a toolbar type arrangement of icons arranged in a linear fashion; said switching occurs from a first icon to a second icon in response to rotational displacements about a vertical axis; said switching occurs from a first text label to a second text label upon rotational displacements about a horizontal axis.

Ellenby et al. teach a device for addressing objects via pointing, including: a direction reference being movable via influence from a user; an attitude determining means is coupled to said movable direction reference whereby a measure of pointing direction may be made (cols. 6-7, lines 29-26). Ellenby et al. further teach: a computer comprising a selection control, said selection control comprising: i) a plurality of selection items; and ii) a selection cursor, said selection cursor is associated with either of said plurality of selection items to form at least one selected item, and said selection cursor being operable for switching from a first item to a second item in response to a change in pointing direction as determined by said attitude determining means, wherein said selection control being represented as a graphic played at said display (Figs. 1-4; cols. 1-2, lines 63-11; col. 2, lines 27-32; col. 10, lines 21-29, lines 48-54); said computer further comprising a selection control, said selection control comprising: i) a selection range; and ii) a selection cursor, said selection cursor is associated with a value within the selection range, said selection cursor being operable for switching values within the selection range in response to a change in pointing direction as determined by said attitude determining means; said graphic being a list of items whereby each of said plurality of selection items appears in the list as a text label; said graphic being a group of icons whereby each of said plurality of selection items is represented in the group by a single icon; said group of icons being a toolbar type arrangement of icons arranged in a linear fashion; said switching occurs from a first icon to a second icon in response to rotational displacements about a vertical axis; said switching occurs

from a first text label to a second text label upon rotational displacements about a horizontal axis (Figs. 1-4; cols. 6-7, lines 50-2; col. 10, lines 12-29; cols. 8-9, lines 61-33 and col. 11, lines 28-67).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Ellenby et al. in the system of Ellenby in order to provide a mobile pointing and addressing device having special map interface and dynamic GUIs responsive to changes in the types of objects being addressed and selected (Ellenby et al., Abstract and col. 1, lines 35-40).

13. Claim 71 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ellenby (U.S. Pat. No. 6,173,239 B1) in view of Ellenby et al. (U.S. Pat. No. 6,396,475).

Ellenby teaches the pointing systems that include the subject matter discussed above. Ellenby does not mention explicitly: said forming a request further includes instructions in agreement with a user selected operational mode.

Ellenby et al. teach a device for addressing objects via pointing, including: forming a request which includes instructions in agreement with a user selected operational mode (Figs. 1-4; cols. 1-2, lines 63-11; col. 2, lines 27-32; col. 10, lines 21-29, lines 48-54).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Ellenby et al. in the system of Ellenby in order to provide a mobile pointing and addressing device having dynamic GUIs responsive to changes in the types of objects being

addressed and operational mode selected by the user (Ellenby et al., Abstract and col. 1, lines 35-40).

14. Claim 72-76, 80, 88, 99 and 105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellenby (U.S. Pat. No. 6,173,239 B1) in view of Sheynblat et al. (U.S. Pub. No. 2002/0171581).

Ellenby teaches the pointing systems that include the subject matter discussed above. Ellenby does not mention explicitly: the server computer is integral with the mobile unit and transmission is via a wireline connection; the request is transmitted via an electromagnetic communication; the request is transmitted via a wireless network; transmitting data with via a wireless network in a wireless telephone protocol; the request is transmitted via a wireless network in communication with the Internet; said wireless network is coupled to the Internet via a wireless application protocol gateway; said computer action is an action taken in a wireless network; said computer action is an action taken in a wireless network, and said action includes a step comprised of generating a report at an object being addressed; said action taken in a wireless network includes a step comprising effecting a telephone communication connection; said action taken at a remote location includes a step comprising providing an alert to authorities as to an emergency condition; said action taken at a remote location includes a step comprising providing an alert to authorities as to a maintenance condition; transmitting a digital data stream by wireless telephone network link to a wireless application protocol gateway and further to an Internet port and finally to an Internet node connected to a server computer.

Sheynblat et al. teach a method and apparatus for providing location-based information, including: transmitting a user request to a server computer wherein the server computer is integral with a client-side mobile unit and transmission is via a wireline connection or an electromagnetic communication or a wireless network or a wireless network in a wireless telephone protocol (Figs.10 and 11; sections 0007, 0033, 0069-0078, 0122, 0123 and 0125-0130); the request is transmitted via a wireless network in communication with the Internet (sections 0082 and 0113-0116); said wireless network is coupled to the Internet via a wireless application protocol gateway (sections 0082 and 0113-0116); a client-server interaction is a computer action which is an action taken in a wireless network, and said action includes a step comprised of generating a report at an object being addressed (sections 0069-0078; sections 0122, 0123 and 0125-0129); said action taken in a wireless network includes a step comprising effecting a telephone communication connection (sections 0007 and 0033); said action taken at a remote location includes a step comprising providing an alert to authorities as to an emergency condition (section 0120); said action taken at a remote location includes a step comprising providing an alert to authorities as to a maintenance condition (section 0120); transmitting a digital data stream by wireless telephone network link to a wireless application protocol gateway and further to an Internet port and finally to an Internet node connected to a server computer (sections 82 and 113-116);

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Sheynblat et al. in the

system of Ellenby in order to provide a mobile pointing and addressing device having wireless communication with the server computer for real-time client-server interaction (Ellenby, Abstract and Sheynblat et al., Abstract).

15. Claim 81, 82 and 109 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellenby (U.S. Pat. No. 6,173,239 B1) in view of Ellenby et al. (U.S. Pat. No. 6,396,475).

Ellenby teaches the pointing systems that include the subject matter discussed above. Ellenby does not mention explicitly: said computer action is an action taken in a mobile unit; said computer action is an action taken at a remote location which relates to an object being addressed.

Ellenby et al. teach a device for addressing objects via pointing, including: a computer action which is an action taken in a mobile unit, wherein said computer action is an action taken at a remote location which relates to an object being addressed (cols. 1-2, lines 63-11; col. 2, lines 27-32; col. 10, lines 21-29, lines 48-54).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Ellenby et al. in the system of Ellenby in order to provide a mobile pointing and addressing device having dynamic response to changes in the types of objects being addressed and selected (Ellenby et al., Abstract and col. 1, lines 35-40).

16. Claim 91-93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellenby (U.S. Pat. No. 6,173,239 B1) in view of Ellenby et al. (U.S. Pat. No. 6,396,475), as applied to claims 81and 82 above, and further in view of

Sheynblat et al. (U.S. Pub. No. 2002/0171581).

Ellenby and Ellenby et al. teach the pointing systems that include the subject matter discussed above. Ellenby and Ellenby et al. do not mention explicitly: said action taken in a wireless network includes a step comprising effecting a telephone communication connection; said action taken at a remote location includes a step comprising providing an alert to authorities as to an emergency condition; said action taken at a remote location includes a step comprising providing an alert to authorities as to a maintenance condition.

Sheynblat et al. teach a method and apparatus for providing location-based information, including: a client-server interaction is a computer action which is an action taken in a wireless network (sections 0007, 0033 and 0120); said action taken in a wireless network includes a step comprising effecting a telephone communication connection (sections 0007, 0033 and 0120); said action taken at a remote location includes a step comprising providing an alert to authorities as to an emergency condition (sections 0007, 0033 and 0120); said action taken at a remote location includes a step comprising providing an alert to authorities as to a maintenance condition (sections 0007, 0033 and 0120).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Sheynblat et al. in the combination of Ellenby and in Ellenby et al. in order to provide a mobile pointing and addressing device having wireless communication with the server computer for real-time client-server interaction (Ellenby, Abstract and Sheynblat et al., Abstract).

17. Claims 112, 113, 116 and 118 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellenby (U.S. Pat. No. 6,173,239 B1) in view of Chan et al. (U.S. Pat. No. 6,381,603).

Ellenby teaches the methods of addressing objects that include the subject matter discussed above. Ellenby does not mention explicitly: said action is stimulating an output type user interface; said action is forming a list of related data elements; transmitting position and attitude information over a wireless communication link to an application server; said action is initiating a telephone call.

Chan et al. teach a local information access system and method, including: a computer action which stimulates an output type user interface; said action is forming a list of related data elements; transmitting position and attitude information over a wireless communication link to an application server; said action is initiating a telephone call (Figs. 1-6 and 19-21; col. 3, lines 11-19; col. 6, lines 59-65; col. 7, lines 16-27 and col. 13, lines 9-34).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the teaching of Chan et al. in the system of Ellenby in order to provide an efficient system and method for distributing stored information from an application server to a client (Chan et al., col. 3, lines 35-56).

Allowable subject matter

18. Claims 53, 63-68, 87, 89, 95, 98, 101 and 102 are objected to as being

dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowable

19. The following is an examiner's statement of reasons for allowance:

The primary reason for the allowance of claim 53 is the inclusion of the limitation that said attitude determining means is a dipole compass. It is this limitation found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

The primary reason for the allowance of claims 63 and 64 is the inclusion of the limitation that said displacements are about between 3 degrees and 20 degrees. It is this limitation found in each of the claims, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for the allowance of claims 65-68 is the inclusion of the limitation that the effect on the control is applied proportionally with respect to the magnitude of the displacement. It is this limitation found in each of the claims, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

The primary reason for the allowance of claim 87 is the inclusion of the limitation that said action includes steps relating to a gaming scheme. It is this

limitation found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

The primary reason for the allowance of claim 89 is the inclusion of the limitation that said report is a reservation for space at a dining facility. It is this limitation found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

The primary reason for the allowance of claim 95 is the inclusion of the limitation that said address indicator is comprised of parameters from the group including: position, attitude, time, temperature, humidity, atmospheric pressure, velocity, acceleration, audio level and wind velocity. It is this limitation found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

The primary reason for the allowance of claim 98 is the inclusion of the limitation that said forming an address indicator is comprised the step measuring attitude with a dipole compass. It is this limitation found in the claim, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes this claim allowable over the prior art.

The primary reason for the allowance of claims 101 and 102 is the inclusion of the limitation that said manipulating a point and direction reference step is further defined as pointing a mobile telephone handset toward an object

of interest whereby said direction reference substantially intersects the space occupied by the object to form a spatial alignment and association between the mobile telephone and the object. It is this limitation found in each of the claims, as it is claimed in the combination that has not been found, taught or suggested by the prior art of record, which makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xiuqin Sun whose telephone number is (571)272-2280. The examiner can normally be reached on 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571)272-2269. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Xiuqin Sun
Examiner
Art Unit 2863

XS
September 11, 2004

John Barlow
Supervisory Patent Examiner
Technology Center 2800